EOKC 09, 12, 18, 24 R

YORK
BY JOHNSON CONTROLS

Ref:

GB

Floor/Ceiling Multisplit Inverter

Installation Instructions

CE

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CERTIFIED PERFORMANCE

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Products are as listed in the EUROVENT Directory of Certified Products, in the program AC1, AC2, AC3, LCP and FC.
The LCP program covers air condensed water chillers and heat pumps of up to 600 kW

User Notice

When operating, the entire capacity of the cooperating indoor unit should be not larger than 150% of outdoor unit. Otherwise, it will cause the shortage of cooling (heating) capacity.

The power supply of the entire unit must be the power supply of outdoor unit. And disconnect the main power of outdoor units before cleaning.

In order to turn on the units successfully, the main power switch should be opened 8 hours before the operation.

After receiving the turn off signal, every indoor unit will continue to work for 20-70sec to make use of the rest cool air or the rest heat air in the heat exchanger, while preparing for the next operation. And this is normal.

When the selected operating mode of the indoor unit are clash with the operating mode of the outdoor unit, the malfunction light will blink after 5s on the indoor unit or remote controller showing that the operation clash, then the indoor unit will stop. At this time, change the operation mode of the indoor unit to the one that would not clash with the outdoor operating mode to make the operation normal. The cooling mode is not clash with the dry mode, while the fan mode is not clash with any mode.

The appliance shall not be installed in the laundry .The appliance shall not be used by children without supervisor.

An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.

Missing information regarding electric supply tolerances(+/-10%, +/-1Hz) in documentation.

Humidity range: 30%~95%.

Main switch provided by end user: main switch handle should be black or gray, it can be locked in “OFF” position with padlock.

The main disconnection device should be installed at a height of 0.6~1.7m. over current protection is required(EN 60947-3, EN 60947-2).

The cooling range of the unit is the outdoor environment temp.-5~48 DB, the heating range of the unit(only for the heat pump type unit) is the outdoor environment temp. -15~27 DB.

This product must not be disposed together with the domestic waste. This product has to be disposed at an authorized place for recycling of electrical and electronic appliances.

Thank you for your selecting of YORK air conditioner, please read this usage and install instruction carefully and keep it well in order to use this unit correctly.

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Ⅰ Safety Information

Please read this manual carefully before use this unit, and operate it correctly according to the guide in this manual.

Please take specially note to the meaning of these two marks：

⚠ **Warning!** This mark means that it may cause casualty or badly hurt if the operation is incorrect.

⚠ **Caution!** This mark means that it may cause casualty or property loss if the operation is incorrect.

⚠ **Warning!**

◆ For the usage safety of the air conditioner, the units should be earthed reliably .Do not connect the earth line with the gas pipe, water pipe, drainage pipe or other places that specialized personnel considers unsafe.

◆ Air conditioner must use special power supply circuit and switches for creepage protect and air with enough capacity should be installed in the circuit.

◆ Ensure that the connecting of power cord is normal, otherwise, electric shock or fire may happened.

◆ Do not cut off the power supply to turn off the unit when it is running, otherwise life time of units may shortened.

◆ Do not mangle wire or adopts wires that are not recommend to use, otherwise, electric shock or fire may happened.

◆ Please don’t operate the unit by wet hand, or electric shock may happened.

◆ Don’t insert finger or stick like things into outlet vent, otherwise, damage may be happened.

◆ Cut down the main power switch immediately if malfunction (such as smell the burning odor etc.) happen, and then contact the special engaged maintenance center. If the abnormal state is maintained, the unit may be damaged or electric shock or fire may be happened.

◆ Do not refit the conditioner. Please contact the agency or professional personnel to repair or move the conditioner.

◆ Do not adopt fuse with unsuitable capacity or adopt iron thread instead of fuse, otherwise malfunction or fire may happened.

◆ Do cut off the main power supply of air conditioner if it would not be used for a long time.

◆ Please turn off the main power of the whole unit before cleaning the conditioner, otherwise electric shock or harm may be happened.

◆ Chemical sprayer should be placed 1m or more away from the unit, otherwise fire or explode may be caused.

◆ Do not let blockage happened in the inlet or outlet vent of the air conditioner, this would cause low efficacy or unit stop.

Ⅱ Selection of Installation Location and Precautions

1 Selection of Installation Location for Air Conditioner Unit

The installation of air conditioner unit must be in accordance with national and local safety codes.

Installation quality will directly affect the normal use of air conditioner unit. The user is prohibited from installation by himself. Please contact your dealer after buying this machine. Professional installation workers will provide installation and test services according to installation manual.

Do not connect to power until all installation work is completed.

2 Selection of Installation Location

* Such a place where cool air can be distributed throughout the room.
* Such a place where is condensation water is easily drained out.
* Such a place that can handle the weight of indoor unit.
* Such a place, which has easy access for maintenance.
* Such a place where is permitting easy connection with the outdoor unit.
* Such a place where is 1m or more away from other electric appliances such as television, audio device, etc.
* Avoid a location where there is heat source, high humidity or inflammable gas.
* Do not use the unit in the immediate surroundings of a laundry, a bath, a shower or a swimming pool.
* Be sure that the installation conforms to the installation dimension diagram.

3 Caution for installation where air conditioner trouble is likely to occur

* Where there is too much of oil.
* Where it is acid base area.
* Where there is irregular electrical supply.

Installation of Floor And Ceiling Type Indoor Unit

1 Space dimension for installation of the unit

The space around the unit is adequate for ventilation. (Refer to Fig.1)

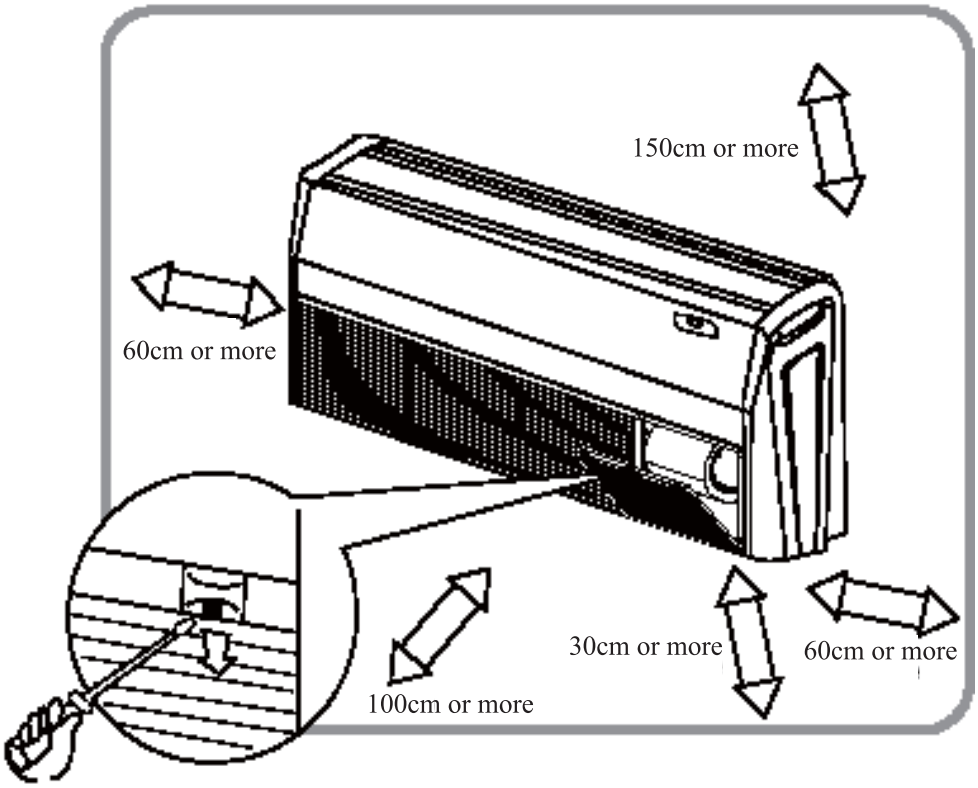


Fig.1

2 Important notice

a. The unit must be installed by the professional personnel according to this install instruction to ensure the well use.

Please contact the local YORK special nominated repair department before installation. Any malfunction caused by the unit that is installed by the department that is not special nominated by YORK would not deal with on time by the inconvenience of the business contact.

b. It should be done by professional personnel when the air conditioner unit is moved to other place.

3 There are 2 styles of installation

＊ **Ceiling type**

＊ **Floor type**

Each type is similar to the other as follows:

a. Determine the mounting position on ceiling or wall by using paper pattern to indicate indoor frame. Mark the pattern and pull out the paper pattern.(Refer to Fig.2)

b. Remove the return grill, the side panel and the hanger bracket from the indoor unit as per procedure bellow.

＊ Press the fixing knob of the air intake grills, the grilles will be opened wider and then pull them out from the indoor.

＊ Remove the side panel fixing screw and pull to the front direction (arrow direction) to remove. Side panel fixing screw. (Refer to Fig.3)

Installation of Floor And Ceiling Type Indoor Unit

＊ Loosen two hanger bracket setting bolts (M8) on eath side for less than 10mm. Remove two hanger bracket fixing bolts (M6) on the rear side. Detach the hanger bracker by pulling it backward (Refer to Fig.5).

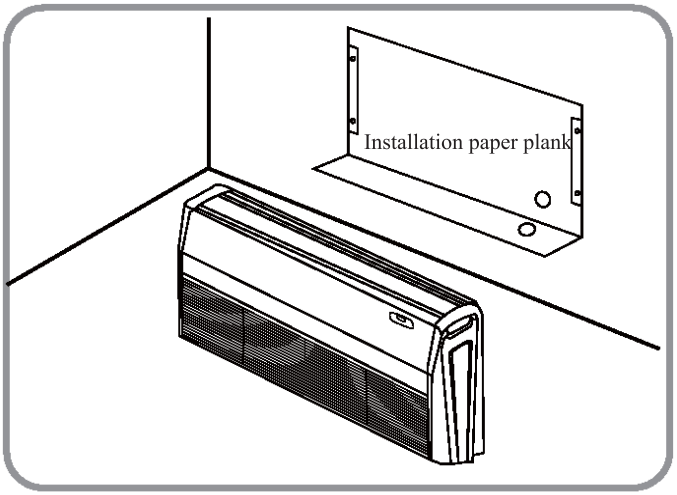


Fig.2

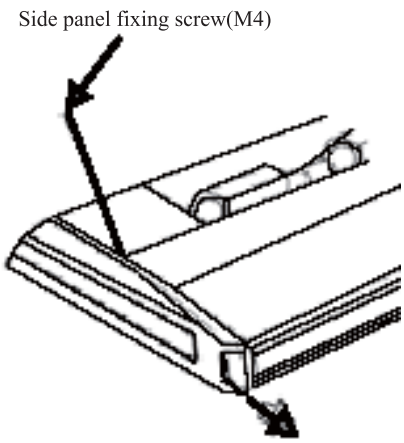


Fig.3

c. Set the suspension bolt. (Use W3/8 or M10 size suspension bolts)

＊ Adjust the distance from the unit to the ceiling slab beforehand. (Refer to Fig.4)

d. Fix the hanger bracket to the suspension bolt.

⚠ **Warning !**

＊ Make sure that extended suspension bolt from the ceiling stays inside the arrowed position. Readjust the hanger bracket when it is outside the arrowed position. (Refer to Fig.6)

＊ Suspension bolt stays inside the cap of indoor unit. Never remove the cap.

e. Lift the unit and slide forward unit the dent. (Refer to Fig.7)

f. Screw tightly both hanger bracket-setting bolts (M8). (Refer to Fig.5)

g. Screw tightly both hanger bracket-fixing bolts (M6) to prevent the movement of the indoor unit. (Refer to Fig.5)

h. Adjust the height so that rear side of the drainpipe slightly inclines to improve drainage.

⚠ **Caution !**

＊ Adjust the height by turning the nut with a spanner.

＊ Insert the spanner from the hanger bracket opening. (Refer to Fig.8)

In case of hanging

It is possible to install using inward facing hanger brackets by not removing the brackets from the indoor unit. (Refer to Fig.9)

Be sure to use only the specified accessories and parts for installation work.

Installation of Floor And Ceiling Type Indoor Unit

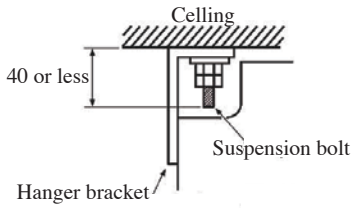


Fig.4

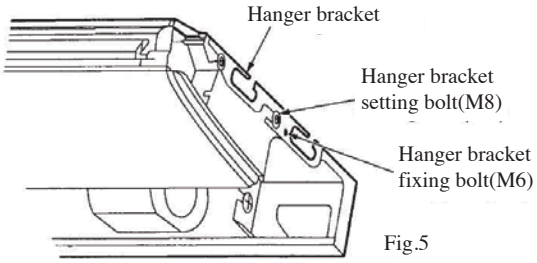


Fig.5

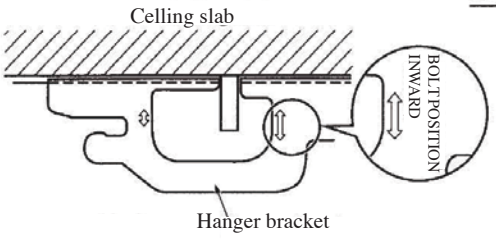


Fig.6

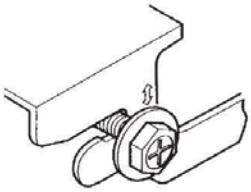


Fig.7

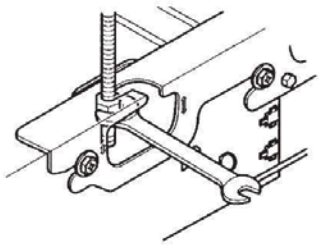


Fig.8

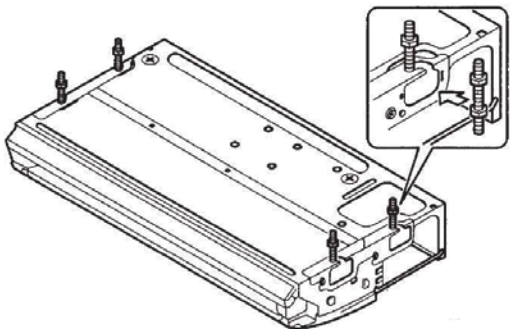
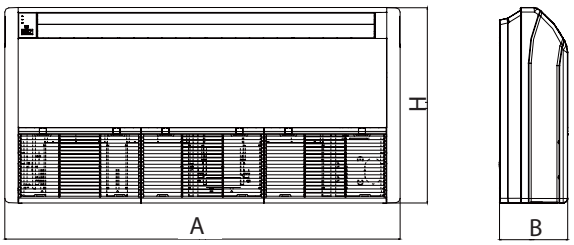


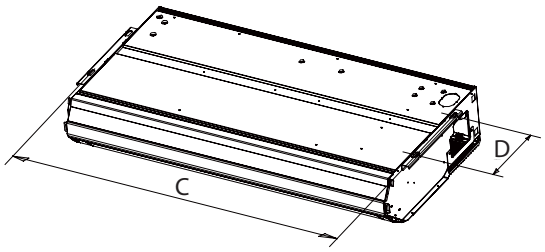
Fig.9

When installing the indoor unit, you can refer the paper pattern for installation, and make sure that the drainage side must be 10mm lower than the other side in order to drain the condensation water fluently.

Unit:mm

Model	A	B	H	C	D
EOKC(09)R	1220	225	700	1158	280
EOKC(12)R					
EOKC(18)R					
EOKC(24)R					





Installation of Floor And Ceiling Type Indoor Unit

4 Electrical wiring

⚠ Caution: The power of every indoor unit should be connected in outdoor unit.

a. Open surface panel.

b. Remove the electrical box cover.

c. Route the power connection cord from the back of the indoor unit and pull it toward the front through the wiring hole upward.

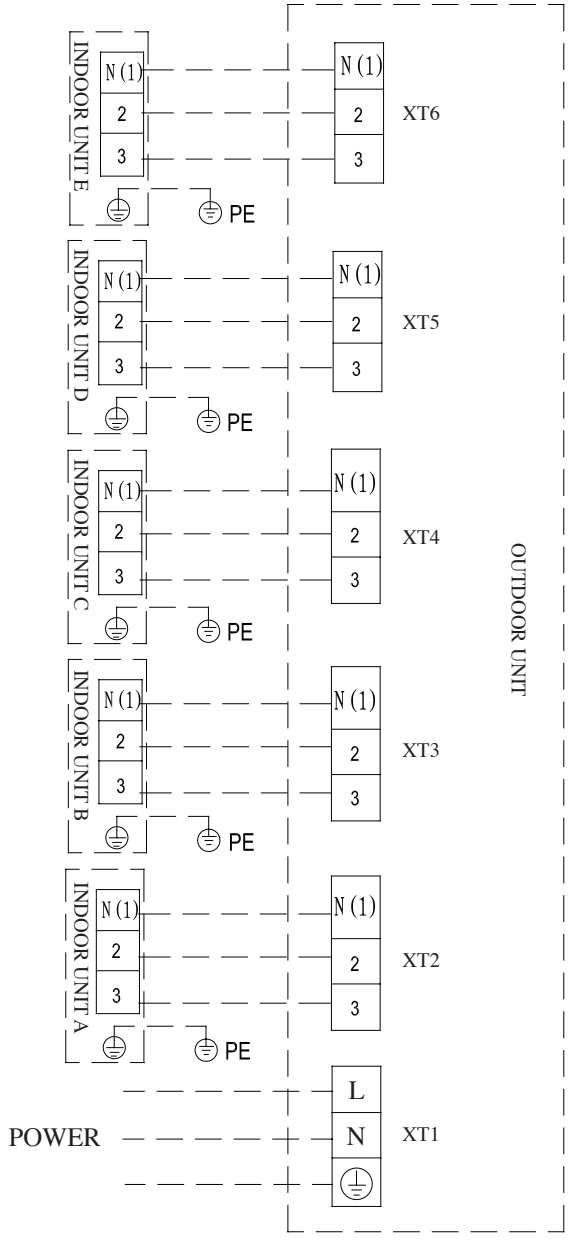
d. Connect the wiring (communication) through the piping hole of the chassis and the bottom of the appliance upward, then connect the brown wire to the Terminal board “3”;black wire(the communication wire) to the Terminal board“2”;blue wire to the Terminal board“N(1)”,and connect the earthing wire to the screw terminal on the electric box. Clamp them with the corresponding wire clamp packed in the chassis.

e. Reassemble the electrical box cover.

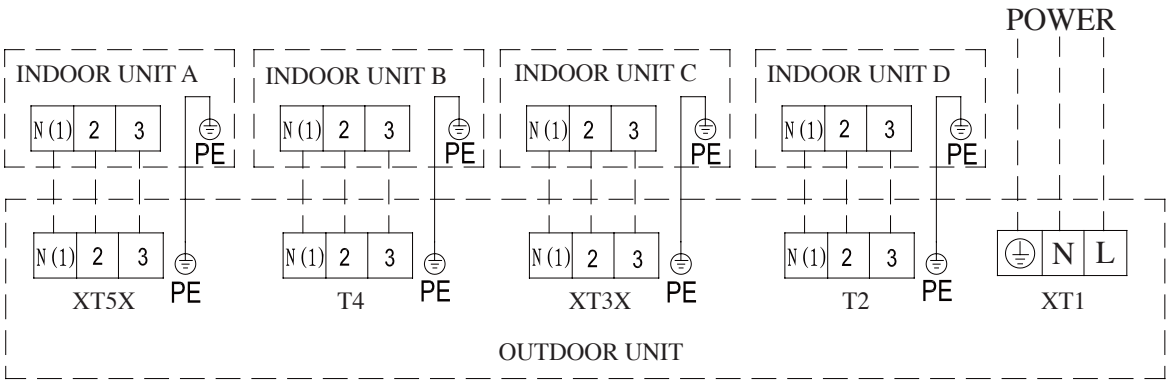
f. Recover the surface panel.

g. The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.

ERJC(42)R



ERJC(36)R



Caution !

① . The incorrect of wiring connecting would lead malfunction of some of the electric elements.

② . Make sure that the lead between the connect end and the clamp end has some need space after the wire is fixed.

③ . The appliance shall be installed in accordance with national wiring regulations.

5 Install the drainage pipe

Make sure the drain flows out

a. Drain piping.

＊ The drainpipe outlet direction can be chosen from either the right rear or right.

＊ The diameter of the drainpipe should be equal to or greater than the diameter of the connecting pipe.

＊ Keep the drain pipe short and incline downwards at a gradient of at least 1/100 to prevent air pockets. (Refer to Fig.10)

＊ Use the attached drain hose ④ and clamp ⑤ .

＊ Insert the drain hose completely into the drain socket. Tighten the clamp within the range of gray tape until the screw head is less than 4mm from the hose. (Refer to Fig.11,Fig.12)

＊ Wrap the attached sealing pad ⑪ over the clamp and drain hose to insulate. (Refer to Fig.12)

＊ No folding of drain hose inside the indoor unit. (Refer to Fig.13)

b. Confirm that smooth drainage is achieved after the piping work.

Pour 600cc of water into the drain pan from the air outlet for confirming drainage.(Refer to Fig.14)

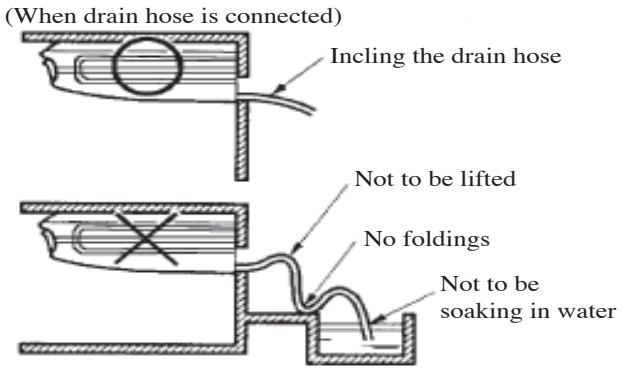


Fig.10

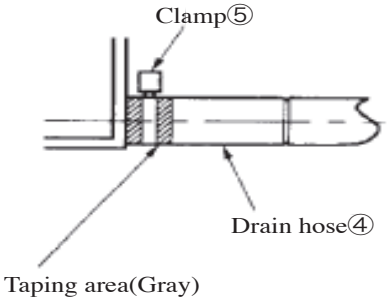


Fig.11

Installation of Floor And Ceiling Type Indoor Unit

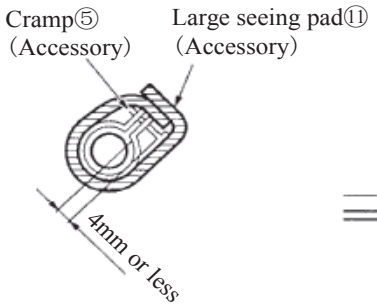


Fig.12

Fig.13

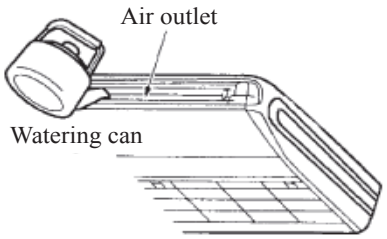


Fig.14

6 Install the connection pipes

Connect the connect pipe with the two relative leading pipe, tie the nut on tie–in of the connect pipe tightly.

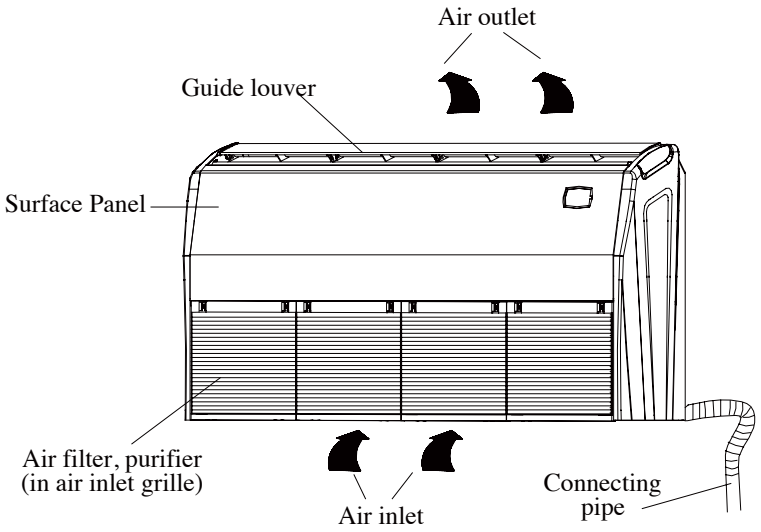
⚠ **Caution** !

＊ Be careful in bending the connection pipes, or you will damage the pipes.

＊ If the tightening torque is too great in tightening the flare nut, leakage will happen.

＊ The temperature of refrigerant circuit will be high, please keep the interconnection away from the copper tube.

Constitutes and Names of Every Part of Floor And Ceiling Type Indoor Unit



Suitable model:

EOKC(09)R EOKC(12)R

EOKC(18)R EOKC(24)R

Note:The appearances will be same by the different models of air conditioners.

Ⅴ Working Temperature Range

Working Temperature Range

	Indoor side state		Outdoor side state	
	Dry bulb temp. ℃	Wet bulb temp.℃	Dry bulb temp. ℃	Wet bulb temp. ℃
Rated. Cooling	27	19	35	24
Max. cooling	32	23	48	26
Min. cooling	21	15	18	—
Rated. Heating	20	15	7	6
Max. heating	27	—	24	18
Min. heating	20	15	－ 15	－ 16

Ⅵ Maintenance Method

⚠ Warning!

①. Do turn off the unit and cut off the main power supply when cleaning the air conditioner, otherwise electric shock may happened.

②. Do not make the air conditioner wet or electric shock may be lead; Ensure that the air conditioner will not be cleaned by water rinsing under any circumstance.

③. Volatility liquid like thinner or gasoline would damage the appearance of air conditioner. (So, only soft dry cloth and wet cloth moistened by neutral cleaning fluid could be used to clean the surface panel of air conditioner.)

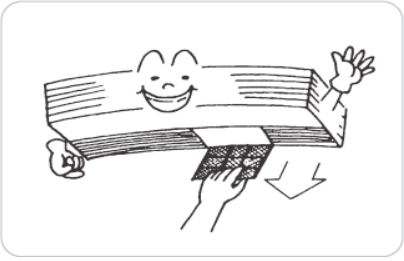
1 Cleaning the air filters

⚠ Warning!

Air filters should be cleaned by professionals with proper operation to ensure personal safety.

Suggestion:

If the air filter is dirty, it will cause the reduction of airflow. The unit is overloaded and consumes 6% more of electricity. So regular cleaning is necessary.



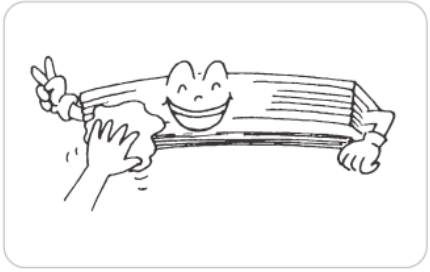
2 Cleaning the unit

Clean the air conditioner and the remote control with dry cloth or a vacuum cleaner. If damp cloth is used, remove moisture by using dry cloth afterward.

⚠ Caution !

①. Do not use benzene gasoline, thinners or polishing products for cleaning.

②. Do not wash with hot water (above 40℃). Some parts of the unit may be deformed.



3 At the start of the season

＊ Check if there is blockage in inlet or outlet vent of air conditioner.

＊ Check if the earth wire had earthed reliably by professional.

＊ Check if the batteries in wireless remote controller had been exchanged.

＊ Check if the air filter had been install well by professional.

＊ In order to start up the air conditioner smoothly after long time's turned off, turn on the main power supply 8 hours before turning on the air conditioner.

＊ Notice: all above should be operated by professional.

4 During the off season

＊ Cut off the power supply main switch.

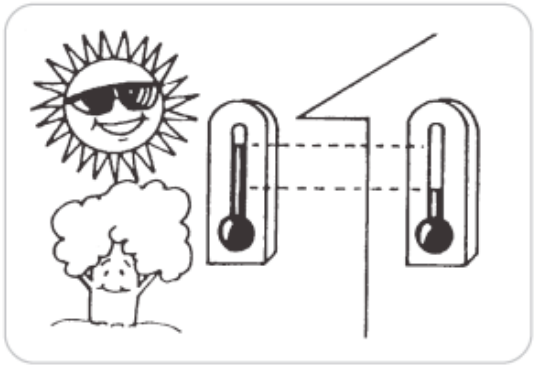
＊ Clean the air filters and other parts by professional.

＊ Leave the fan running for 2-3 hours to dry out the inside of the unit.

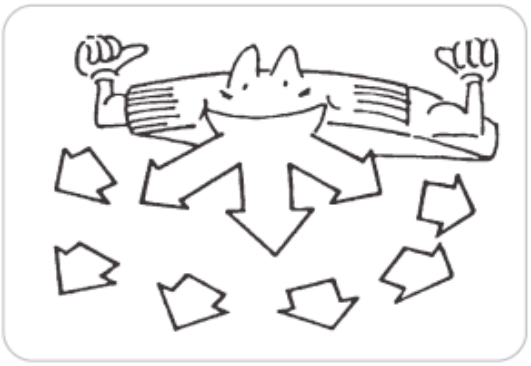
＊ Notice: all above should be operated by professional.

Ⅶ Operating Instructions

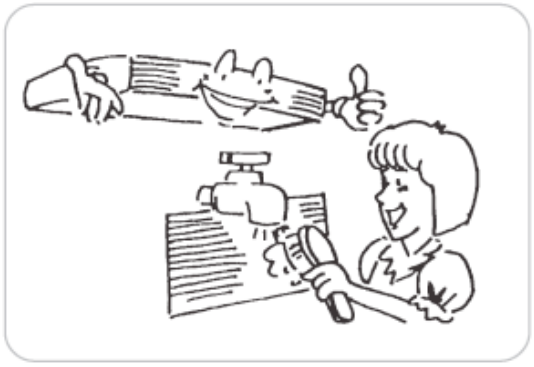
＊ The temperature should not be set lower than what you need. This would lead to increase energy cost.



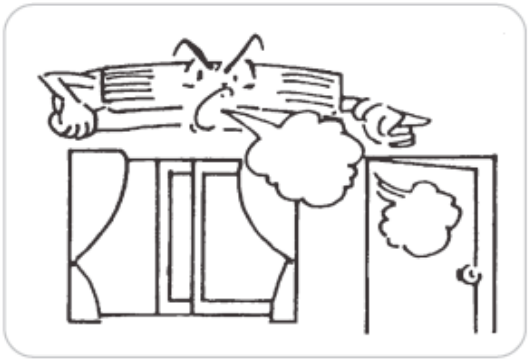
＊ To distribute cool air throughout the room, adjust airflow direction as shown by the arrows (see picture) to diffuse cool air.



＊ Clean the air filter every week for higher efficiency by professional.

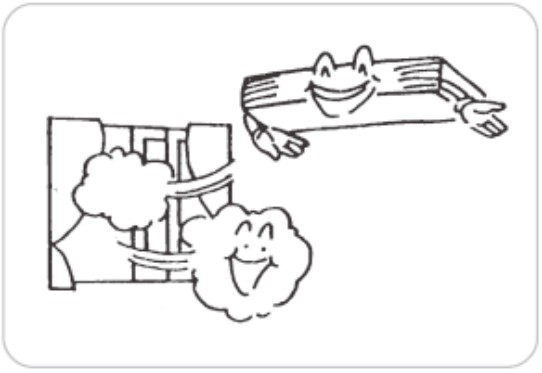


＊ Close window and door while operating the unit to prevent leakage of cooled air and save energy.



＊ Draw close curtains or close glass windows when cooling to prevent heat load from sun light which may cause more electricity cost.

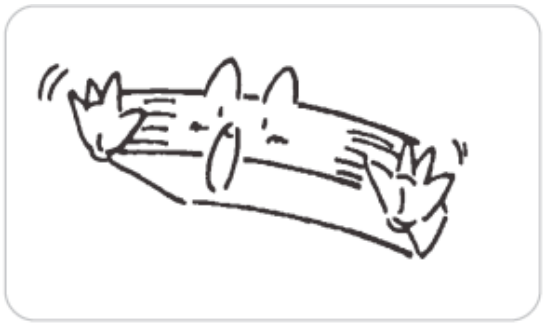
＊ In case of ineffective ventilation, open the window to ventilate the room air once in a while but not too long since cooled air will be uselessly drained out.



* Check electrical system (voltage and frequency). Use the power supply indicated on the unit to operate the air conditioner and only fuses with specified capacity it should be done by professional. Do not use pieces of wire instead of fuse.

* Turn off the air conditioner if, while the air conditioner is running, electricity interference occurs. If the unit is not to be used for a long time, cut off the power supply main switch.

* Do not insert objects into the air inlet or outlet when the air conditioner is running as it may cause damage or personal injury. Also pay special attention when children are around.



* Do not locate any obstacle against the air flow direction of indoor and outdoor unit. Otherwise, it can cause inefficient performance or malfunction.

* Do not channel the airflow directly at people, especially infants, aged persons, or patients.

* Do not locate a heater or any other heat source close to the unit. The heat may deform plastic parts.

Ⅷ Malfunction Analyzing

⚠ Warning !

Do not repair air conditioner by yourself for the incorrect repair would lead electric shock or fire. Please contact service center and had the unit repaired by specialized personnel. Check the following item before contacting to repair could save your time and cost.

Malfunction Phenomena	Malfunction Analyzing
The air conditioner can't start up just after turned off	The over load protect switch of the unit makes it runs after 3 mins delay
Odor gave out when the unit just turned on	This is because when air conditioning, odors or cigarette smoke from the room that was sucked in is discharged again.
Slight bicker was heard when the unit is running	This is the sound for inner refrigerant flowing
Mist come from air outlet vent when cooling	Indoor air is cooled rapidly
Creak sound is heard when running or after run	The grating sound caused by expands of panel and other parts for the change of temperature.
The air conditioner cannot run	Is power cut ? Is the power supply connected ? Is the circuit protector started aside ? Is the voltage too high or too low ? If TIMER had been set in wireless remote controller ? **Notice :all above should be operated by professional**
The cooling (heating) effect of the air conditioner is not good	Is the temp. set in proper ? Is the inlet, outlet vent of outdoor unit blocked ? Is the air filter too dirty to cause blockage ? Are windows and doors closed ? Is air quantity set to Low speed ? Is there other heating resource in room ?
Wireless remote controller cannot control	* Under the circumstance of changed batteries, the wireless remote controller sometimes would appear the phenomena of couldn't control. Take out the back cover and press "ACL" button to make it normal. * The air conditioner is under abnormal disturbance orchanging function too frequently, to make wireless remote controller cannot control. Cut off main power switch and re-electrify could resume normal operation. Is the controller within the receiving area ? Or is there blockage ? Check if the voltages of batteries in wireless remotecontroller are enough; Otherwise change the btteries.

1 Service center

When the following phenomena appeared, please stop operating immediately, cut off main power supply of unit and contact service center for the conditioner.

* Harsh sound heard when running.
* The fuse or protector cut frequently.
* Substance or water pulled in the unit involuntary.
* Water leakage in room.
* Over heat of power cord.
* Odor is given out when running.

2 After-sales Service

When having quality or other problems when purchasing air conditioner, please contact the local.

DECLARACION CE DE CONFORMIDAD SOBRE MAQUINAS

FABRICANTE: **JOHNSON CONTROLS MANUFACTURING ESPAÑA, S.L.**

DIRECCIÓN: Paseo Espronceda, 278, 08204 SABADELL

Certificamos que el equipo descrito, ha sido diseñado, fabricado y probado de conformidad con los requisitos básicos de la Directiva de Equipos a presión 97/23/CEE y sus correspondientes módulos de aplicación. Así mismo certificamos que el equipo es conforme a las exigencias básicas de las Directivas Europeas que le son aplicables, incluidas las modificaciones de las mismas y las correspondientes transposiciones a la ley nacional.

APLICACIÓN DE LA MÁQUINA: AIRE ACONDICIONADO/REFRIGERACION

TIPO: **EOKC 09, 12, 18, 24 R**

DIRECTIVAS DE LA CE APLICADAS: 2006/95/CEE, 2004/108/CEE, 97/23/CEE

NORMAS ARMONIZADAS APLICADAS: EN6335-1, EN6335-2-40, EN62233, EN61000-6-3, EN61000-6-1, EN61800-3

NORMAS INTERNACIONALES Y ESPECIFICACIONES TÉCNICAS APLICADAS: EN ISO 9001, EN ISO 14001

LUGAR: Sabadell, (España)

FIRMA: DAVID MURRAY
USG LOGISTICS MANAGER

DECLARATION OF COMPLIANCE ON MACHINERY

MANUFACTURER: **JOHNSON CONTROLS MANUFACTURING ESPAÑA, S.L.**

ADDRESS: Paseo Espronceda, 278, 08.204 SABADELL

We hereby certify that the mentioned equipment has been designed, manufactured and tested in accordance with essential requirements of Pressure Equipment Directive 97/23/EEC and its relevant application modules. We futher certify that the equipment complies with the essential requirements of the European Directives applicable, including their modifications and the corresponding transpositions from the national law.

APPLICATION OF THE MACHINE: AIR CONDITIONER/COOLING

TYPE: **EOKC 09, 12, 18, 24 R**

EC STANDARDS APPLIED: 2006/95/CEE, 2004/108/CEE, 97/23/CEE

MATCHING STANDARDS APPLIED: EN6335-1, EN6335-2-40, EN62233, EN61000-6-3, EN61000-6-1, EN61800-3

INTERNATIONAL STANDARDS AND TECHNICAL SPECIFICATIONS APPLIED : EN ISO 9001, EN ISO 14001

PLACE: Sabadell, (España)

SIGNATURES: DAVID MURRAY
USG LOGISTICS MANAGER

www.johnsoncontrols.com